



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

editors, and with the support of a great University, will be a powerful incentive to science. Members of the LICK Observatory staff are on the editorial boards of three of the five astronomical publications.

E. S. H.

MOUNT HAMILTON, December 15, 1894.

THE ASTROPHYSICAL JOURNAL. An International Review of Spectroscopy and Astronomical Physics (continuing *Astronomy and Astro-Physics*).

Editors—GEORGE E. HALE, Director of the YERKES Observatory; JAMES E. KEELER, Director of the Allegheny Observatory.

Assistant Editors—J. S. AMES, Johns Hopkins University; W. W. CAMPBELL, LICK Observatory; HENRY CREW, Northwestern University; E. B. FROST, Dartmouth College; F. L. O. WADSWORTH, University of Chicago.

Associate Editors—M. A. CORNU, École Polytechnique, Paris; N. C. DUNÉR, Astronomiska Observatorium, Upsala; WILLIAM HUGGINS, Tulse Hill Observatory, London; P. TACCHINI, R. Osservatorio del Collegio Romano, Rome; H. C. VOGEL, Astrophysikalisches Observatorium, Potsdam; C. S. HASTINGS, Yale University; A. A. MICHELSON, University of Chicago; E. C. PICKERING, HARVARD College Observatory; H. A. ROWLAND, Johns Hopkins University; C. A. YOUNG, Princeton University.

Published by the University of Chicago. \$4 per year. WM. WESLEY & Son, 28 Essex Street, Strand, London, are sole foreign agents.

DISCOVERY OF A NEW GAS IN THE EARTH'S ATMOSPHERE.

In *Nature's* account of the meeting of the British Association for the Advancement of Science, held at Oxford, in August, there is a paragraph devoted to a most interesting discovery. It seems that the eminent investigators Lord RAYLEIGH and Professor RAMSAY announced the discovery of a new substance in our atmosphere. Certain experiments made by CAVENDISH seemed to point to the presence in air of some substance other than the gases with which we are familiar. Lord RAYLEIGH and Professor RAMSAY's attention was recalled to this substance by the fact that the density of nitrogen taken from the air differs about one-half per cent. from

the density of nitrogen taken from other sources of that gas. The new and unknown substance was isolated by subjecting nitrogen taken from the air to the action of magnesium. The magnesium absorbed the nitrogen and left a residual gas whose density was nearly 50 per cent. greater than that of nitrogen. The newly discovered substance seems to constitute about 1 per cent., by weight, of the atmosphere. It gives a spectrum consisting of a single line in the blue.

The investigators have not made the details of their work public, but it is announced that they will present them at a meeting of the Royal Society in the near future. W. W. C.

ON PHOTOGRAPHING THE SOLAR CORONA WITHOUT AN ECLIPSE.

The importance of obtaining an accurate knowledge of the constitution and physical condition of the solar corona is very great. Our present knowledge on that subject is extremely meagre, and is advancing at an exasperatingly slow rate. We are able to observe the corona only during the moments of total eclipses, and the most persistent eclipse observer cannot expect more than one hour for such observations in his whole lifetime. To remedy this misfortune, many commendable attempts have been made to see and to photograph the corona without the aid of an eclipse. Professor GEO. E. HALE, Director of the YERKES Observatory, has an interesting paper giving the history of these attempts in the October *Astronomy and Astro-Physics*. Unfortunately he had only failures to chronicle. The most recent trials were those made by Professor HALE on Pike's Peak in 1893, and Mount Etna in 1894. In conclusion, he writes: "While it can hardly be said that the results of my various attempts to photograph the corona without an eclipse have been at all encouraging, I have by no means abandoned hope that the method, if fairly tried under good conditions, may yet be successful. In choosing a site great care should be taken. On Pike's Peak the dust was very troublesome. * * * There was much more dust on Etna than on the Peak. * * * A snow-covered peak might offer important advantages in this and other particulars."

W. W. C.